

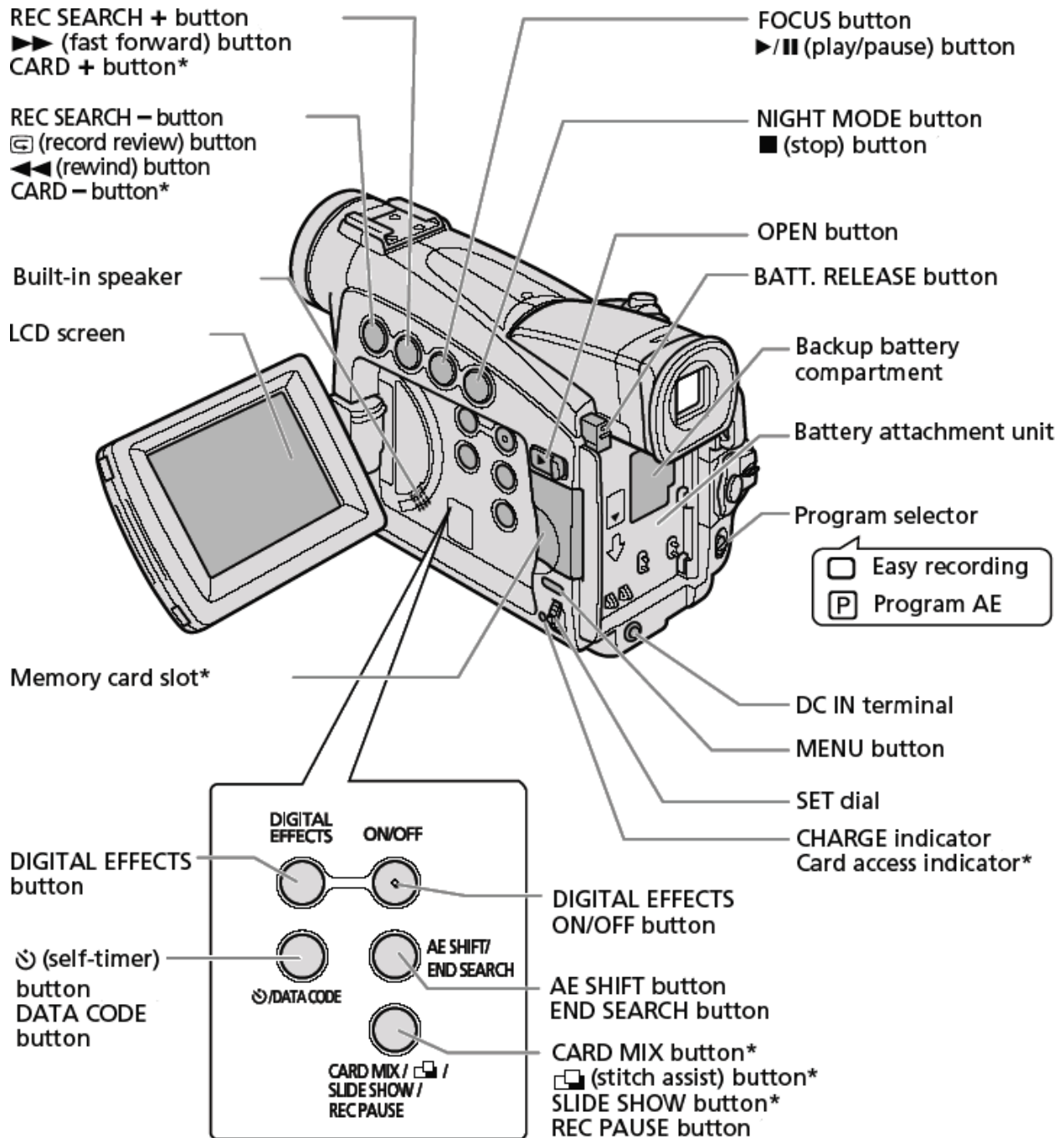
# Digital Video Workshop

# Canon



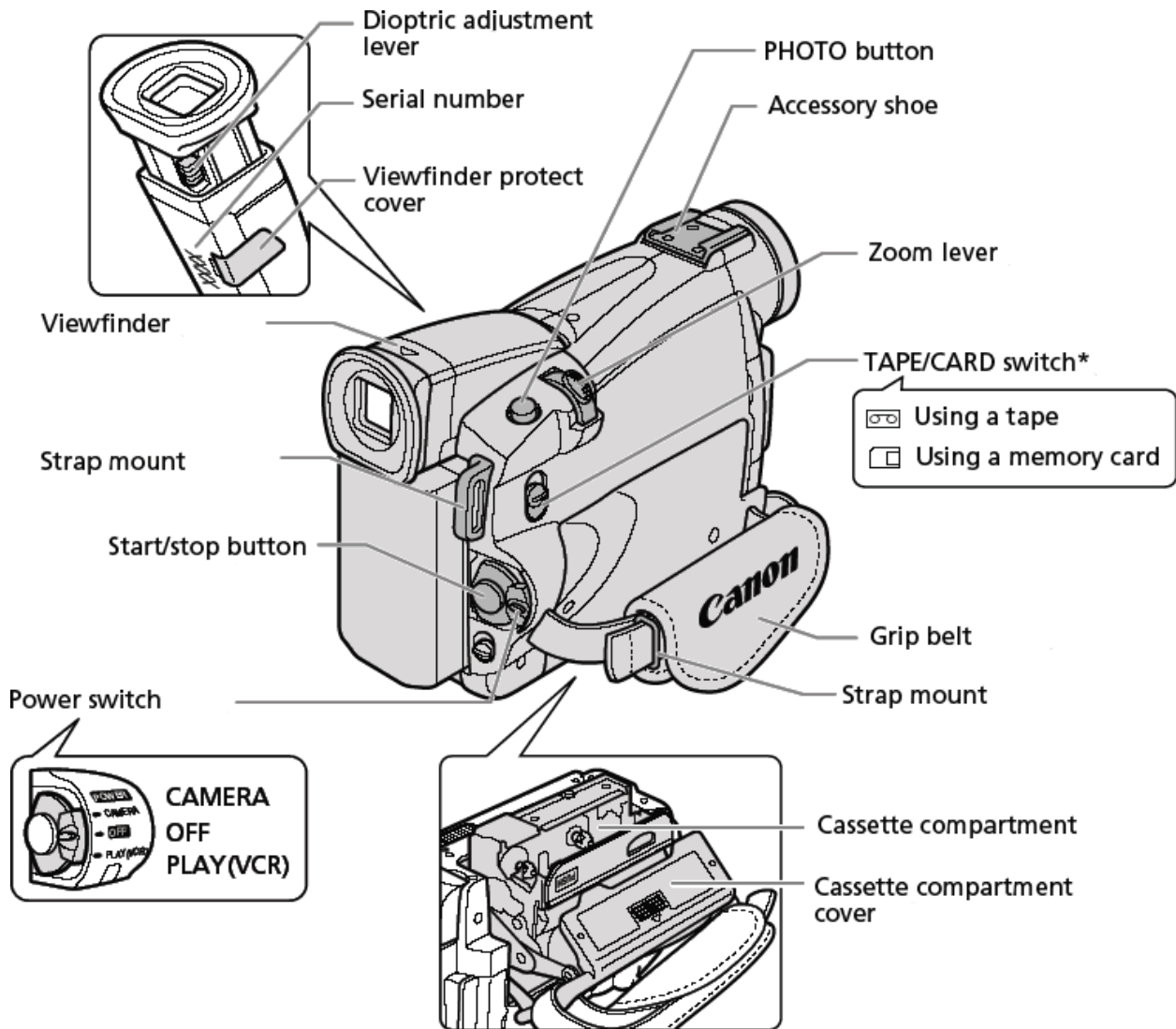
# ZR90

Camera Components

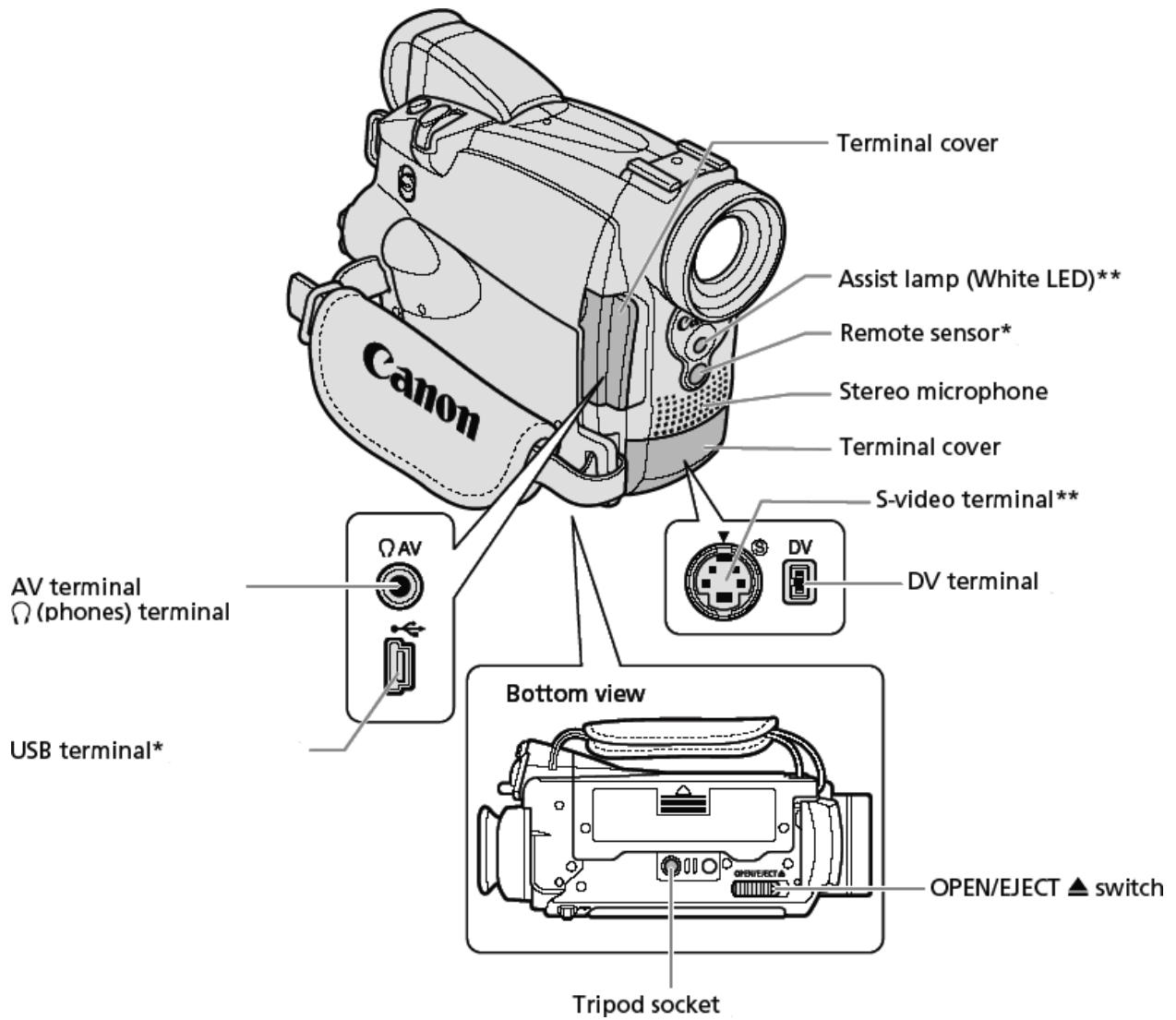


Center for Teaching and Learning

Camera Components (continued)



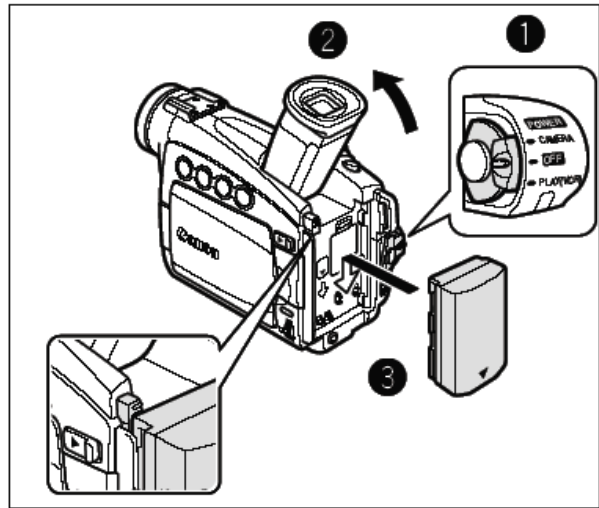
Camera Components (continued)



## Preparing the Battery Pack

### Attaching the Battery Pack

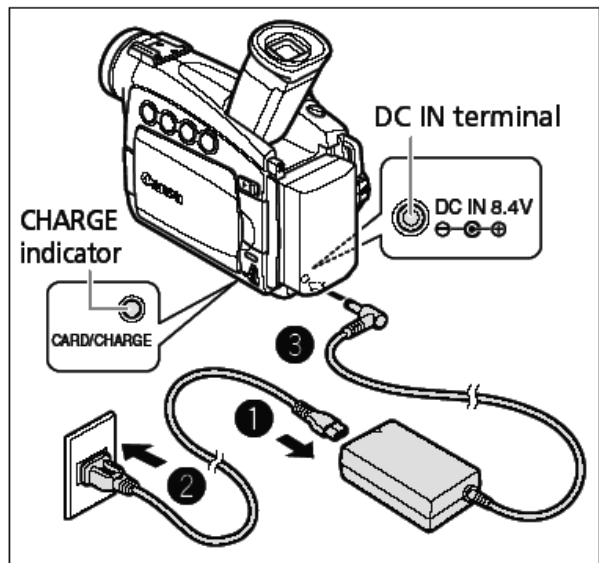
1. Turn the POWER switch to OFF.
2. Move the viewfinder upward.
3. Attach the battery pack to the camcorder.
  - Remove the terminal cover of the battery pack.
  - Press lightly and slide it in the direction of the arrow until it clicks.



### Charging the Battery Pack

1. Connect the power cord to the adapter.
2. Plug the power cord into a power outlet.
3. Connect the power adapter to the camcorder's DC IN terminal.

The CHARGE indicator starts flashing. It glows steadily when charging is complete.
4. When charging is complete, disconnect the power adapter from the camcorder. Unplug the power cord from the power outlet and disconnect it from the adapter.
5. Remove the battery pack after use.

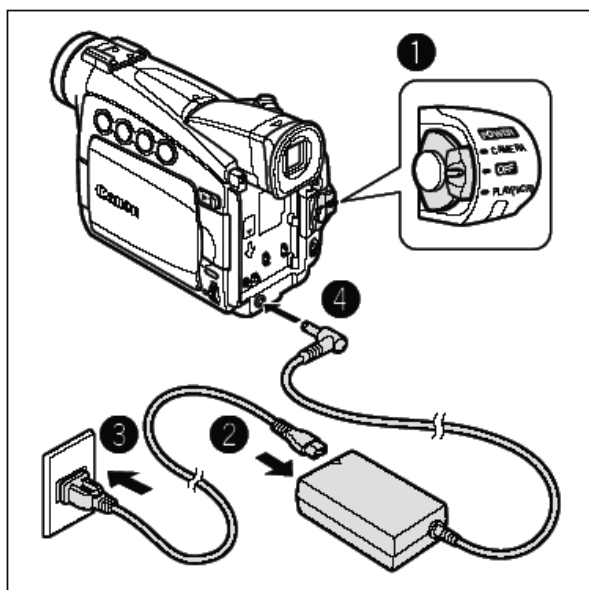


Press the BATT. RELEASE button to remove the battery.

This button is located above the battery, to the left of the viewfinder. It's labeled "BATT"

## Using a Household Power Source

1. Turn the POWER switch to OFF.
2. Connect the power cord to the power adapter.
3. Plug the power cord into a power outlet.
4. Connect the power adapter to the camcorder's DC IN terminal.



Loading/Unloading a Cassette

1. Slide and hold the OPEN/EJECT switch and open the cassette compartment cover.

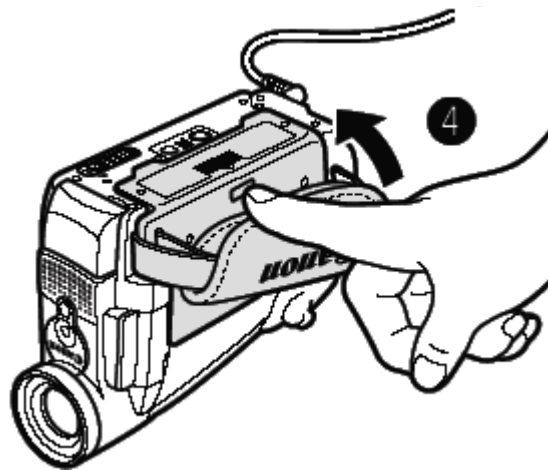
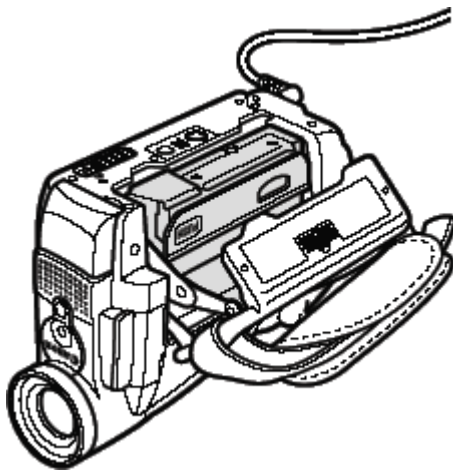
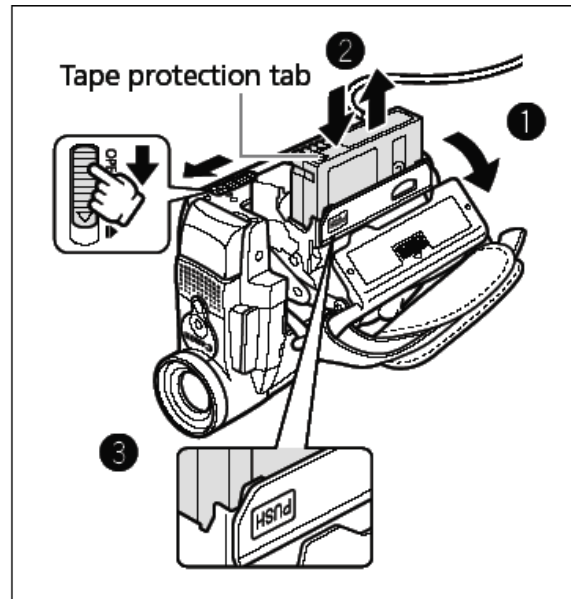
The cassette compartment opens automatically.

2. Load/unload the cassette.

- Load the cassette with the window facing the grip belt.
- Unload the cassette by pulling it straight out.

3. Press the **PUSH** mark on the cassette compartment until it clicks.

4. Wait for the cassette compartment to retract automatically and close the cassette compartment cover.

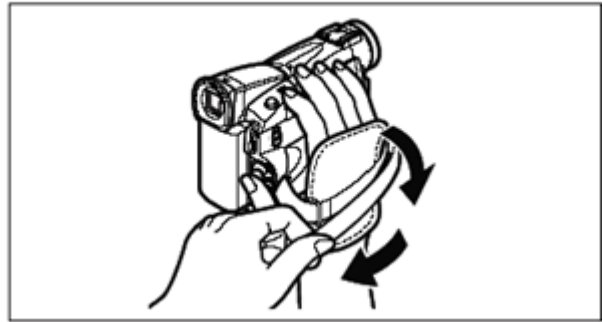


Preparing the Camcorder

**Fastening the Grip Belt**

Hold the camcorder with your right hand and adjust the belt with your left.

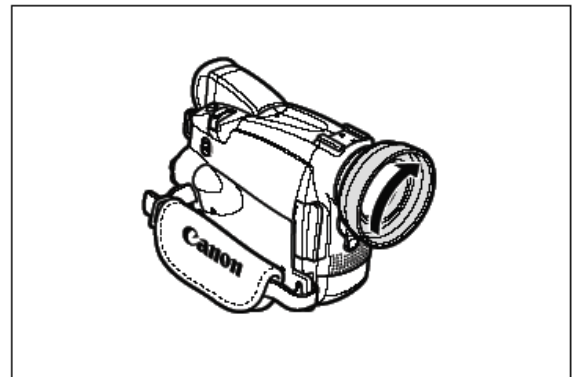
Adjust the grip belt so that you can reach the zoom lever and photo button with your index finger, and the start/stop button with your thumb.



**ZR90 Mounting the Wide Attachment**


The WA-30.5 Wide Attachment gives you a wide perspective for indoor shots or panoramic views (0.6×). The wide attachment is for use at maximum wide-angle.

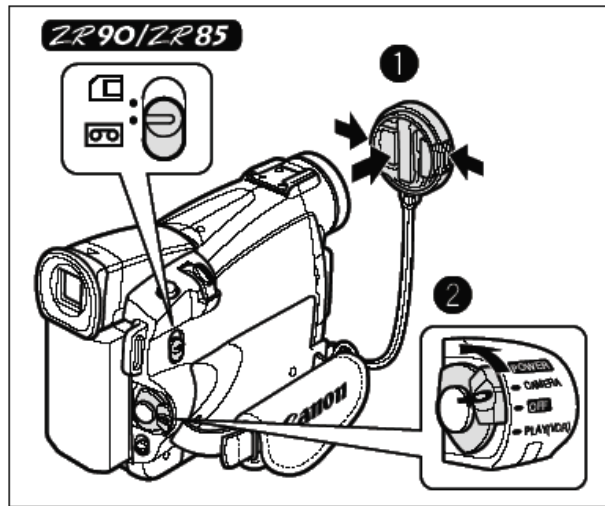
Screw the wide attachment fully into the lens filter thread.



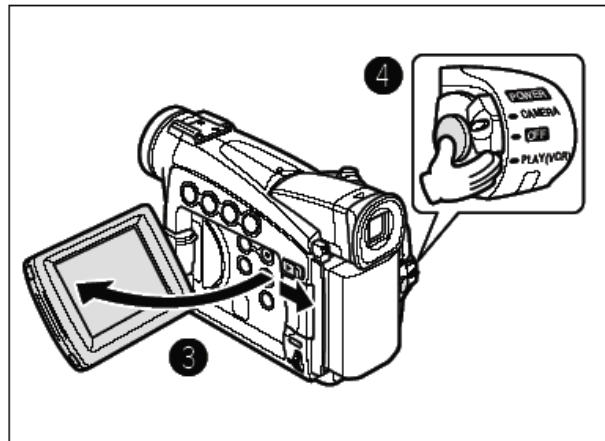
Recording Movies on a Tape

**Recording**

1. Remove the lens cap.
2. Set the camcorder to CAMERA mode.
  - **ZR90/ZR85** Set the POWER switch to CAMERA and the TAPE/CARD switch to .



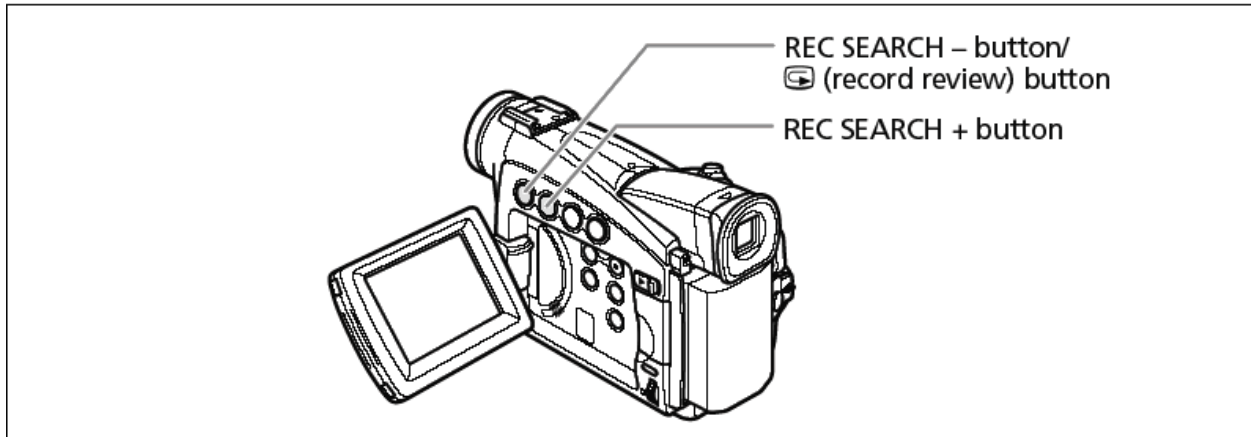
3. Push the OPEN button at the LCD panel and open the LCD panel.
4. Press the start/stop button to begin recording.  
Press the start/stop button again to pause recording.



**When You Have Finished Recording**

1. Turn the POWER switch to OFF.
2. Close the LCD panel and return the viewfinder into its initial position.
3. Replace the lens cap.
4. Unload the cassette.
5. Disconnect the power source.

## Searching and Reviewing when Recording



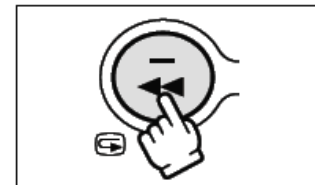
### Record Review



In record pause mode, this function allows you to review the last few seconds of your recording to check if it has been recorded properly.

**Press and release the (record review) button.**

The camcorder rewinds the tape, plays back the last few seconds, and returns to record pause mode.



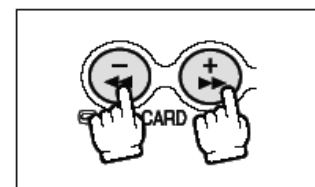
### Record Search



In record pause mode, this function allows you to play back the tape (forward or reverse) to locate the point where you wish to begin recording.

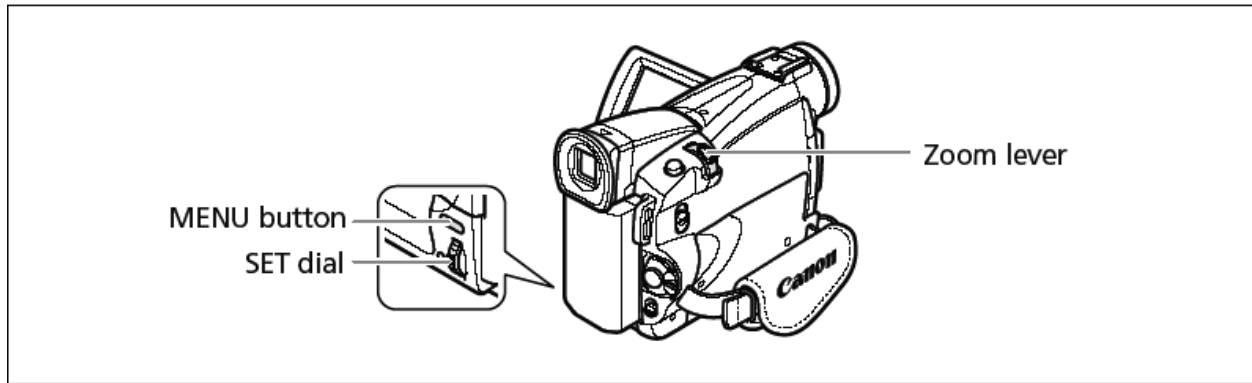
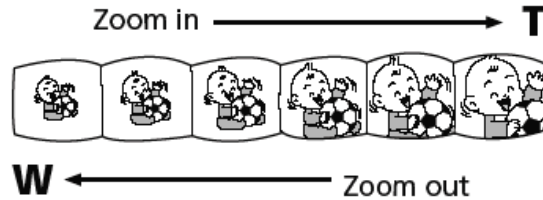
**Press and hold the REC SEARCH + button (forward) or - button (reverse).**

- Release the button at the point you wish to begin recording.
- The camcorder returns to record pause mode.



## Zooming

The camcorder automatically switches between optical zooming and digital zooming. Image resolution is slightly lower with the digital zoom.



## Optical Zoom

**ZR90**

22× optical zoom

CAMERA

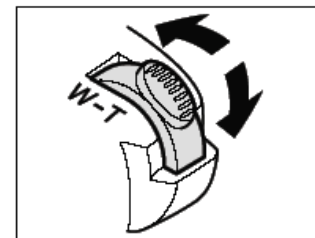
PLAY (VCR)

CARD CAMERA

CARD PLAY

**Move the zoom lever toward **W** to zoom out (wide-angle). Move it toward **T** to zoom in (telephoto).**

Press the zoom lever slightly for a slow zoom. Press harder for a faster zoom.



## Digital Zoom

**ZR90**

88×/440× digital zoom  
(88× in CARD CAMERA mode)

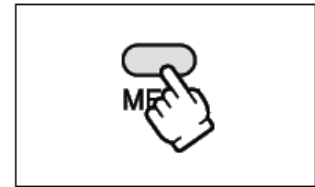


### MENU

CAMERA SETUP

D.ZOOM.....88X

1. Press the MENU button to open the menu.



2. Turn the SET dial to select [CAMERA SETUP] and press the SET dial.



3. Turn the SET dial to select [D.ZOOM] and press the SET dial.


4. Turn the SET dial to select a setting option.

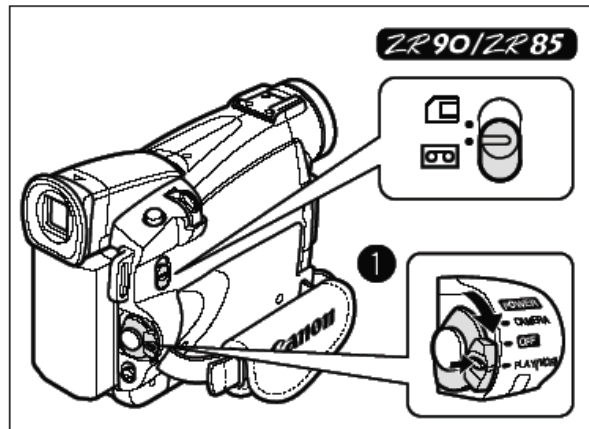
5. Press the MENU button to close the menu.



### Playing Back a Tape

1. Set the camcorder to **PLAY (VCR)** mode.

- **ZR90/ZR85** Set the POWER switch to PLAY (VCR) and the TAPE/CARD switch to .



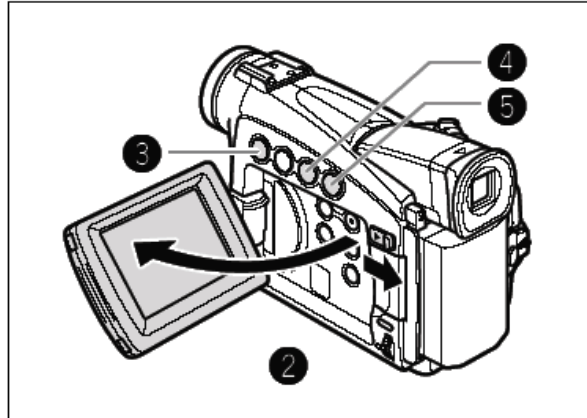
**2. Open the LCD panel.**

You can also close the LCD panel with the screen facing outward.

**3. Press the ◀◀ button to rewind the tape.**

**4. Press the ▶/|| button to begin playback.**

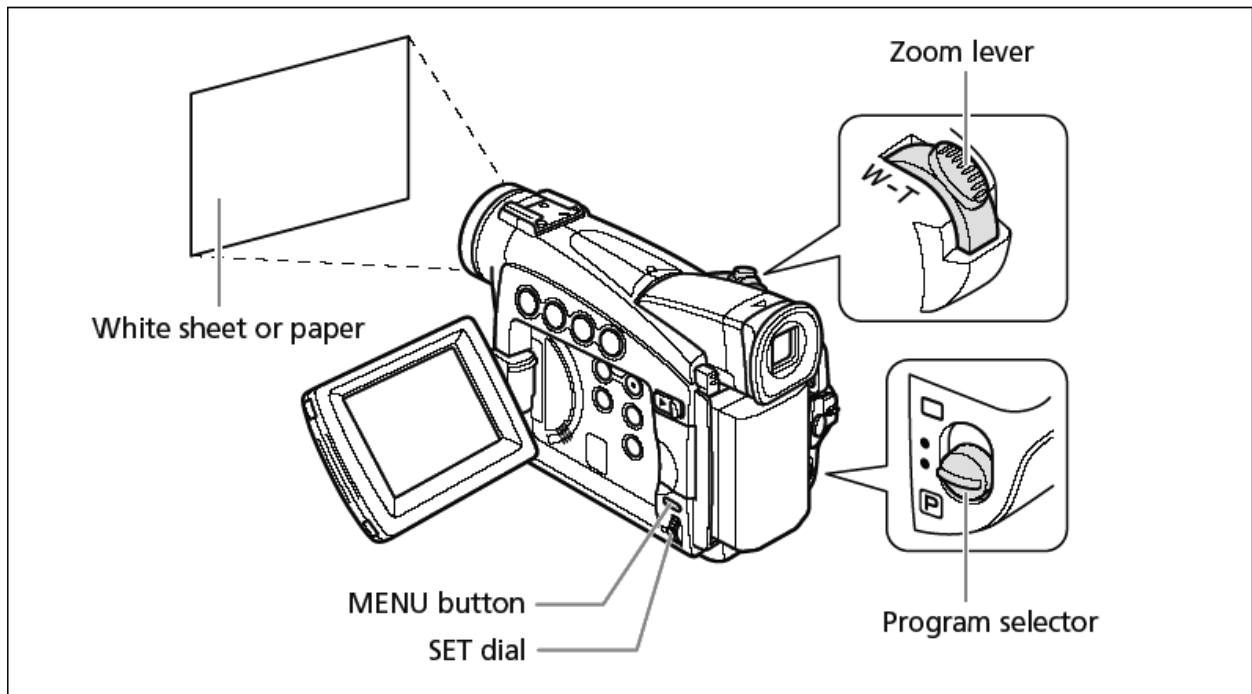
**5. Press the ■ button to stop playback.**



**Setting the White Balance**



You can use the preset modes to reproduce colors more accurately, or set a custom white balance to obtain the optimal setting.

AUTO	Auto white balance
SET	Custom white balance setting
INDOOR	Use this mode for recording under changing lighting condition, video lights or sodium lamps.
OUTDOOR	Use this mode for recording night scenes, fireworks, sunrise or sunset.



## Center for Teaching and Learning



1. Set the program selector to **P**.
2. For custom white balance: Point the camcorder at a white object and zoom in until it fills the whole screen.  
Keep the camcorder zoomed at the white object until step 4 is completed.
3. Open the menu and select **[CAMERA SETUP]**. Select **[WHITE BAL.]**, select a setting option and close the menu.  
When you have selected **[SET **]: "****" flashes and stops flashing when settings is complete.
4. Close the menu.

Tips for Making Better Videos

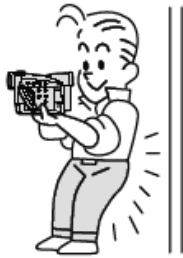
**Holding the Camcorder**

For maximum stability, grip the camcorder in your right hand and keep your right elbow pressed against your body. If necessary, support the camcorder with your left hand. Be careful that your fingers do not touch the microphone or lens.



**For More Stability**

Lean against a wall



Put the camcorder on a table



Lie on your elbow



Use a tripod



**Lighting**

When recording outdoors, we recommend recording with the sun at your back.

